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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,080

03/30/2006

Takuya Tsukagoshi

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25944 7590 09/05/2008

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EXAMINER

ANGEBRANNDT, MARTIN J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

09/05/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/574,080	<b>Applicant(s)</b> TSUKAGOSHI ET AL.	
	<b>Examiner</b> Martin J. Angebrannt	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/30/06</u>   | 6) <input type="checkbox"/> Other: _____                          |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. '193, in view of Dhar et al. '576 .

Maeda et al. '193 teaches the mixing of the holographic composition including the matrix precursor, the photopolymerizable components, the photoinitiator and the sensitizing dye (coumarin) in a glass substrate to a thickness of 10 microns, allowed to cure the matrix for 10 hours and provided with a protective layer. This was then used to record a hologram and fix the hologram (12/35-13/61).

Dhar et al. '576 teaches with respect to figure 5, an optical article (29), and substrates (24,26), an adhesive film (28) and photocurable composition (27) and a holders (20 and 22). The substrates are held so that their outer surfaces are parallel prior to and during curing [0041-0045]. The optical articles can be holographic recording media and the adherent to be a photopolymer and the thickness of the adherent layer is 0.2 to 2 mm. [0078-0081]. The thickness of the adherent will be different for different applications. [0070].

It would have been obvious to modify the process of Maeda et al. '193 by adding a photoadherent layer between the holographic recording layer and the second support as taught by Dhar et al. '576 to allow the outer surfaces of the substrate to be fixed in a parallel arrangement

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3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. '193, in view of Dhar et al. '576, further in view of Mizutani et al. '511 .

Mizutani et al. '511 teaches a sealing agent for 10-40 micron thick holograms having a thickness of 50 microns. (example 1,11 and 5, (12/23-28)). The desire to make thinner devices is disclosed (18/29-30)

In addition to the basis above, it would have been obvious to modify the articles resulting from the combination of Maeda et al. '193, in view of Dhar et al. '576 by using thin thicknesses of the photoadherent, such as the 50 micron thicknesses taught by Mizutani et al. '511 to make the resultant articles thinner with a reasonable expectation of being able to protect the 10 micron holographic layer based upon this thickness being disclosed as suitable for 10-40 microns thicknesses.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebranndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Martin J Angebranndt  
Primary Examiner  
Art Unit 1795

/Martin J Angebranndt/

Primary Examiner, Art Unit 1795

9/2/08